

Wednesday, April 05, 2017 4:33:47 PM

159237

Page 1

Stop *NS2*

Customer:

Run Start *NR1*

Stop ***NR2***

QC: 21 9-89 Date: _____ SPC (Y/N): _____ Date: _____

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	Past Due ☐							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 159237

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159237

Page 2

Item ID: 646.4001 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AS350 Cable Cutter System
Start Date: 4/10/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 4/18/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference: SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4001								
	Location: <u>Eg 101</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.10							
Quality Control									

DAS 28 9-89 APR 12 2017

17/4/13

DAS 21 9-89

APR 12 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Page 1

Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:JLM
IPP REV:B 15.01.08 AS PER DWG REV.B DD VERF:JLM IPP
REV:C 16.01.07 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
600.0129 *600 0129* VHB TAPE 75935A651		Purchased	No			100	f	112.0000	8	8			
**													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				CCK096		112							
				m135867		112							
600.0990 *600 0990* Magnabond 6398 Part A Size 112 ml		Purchased	No			100	Each	30.0000	1	1			
**													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				PKG		30							
				M136586		5							
				M136862		12							
				M137073		12							
				M134249		1							
600.0991 *600 0991* Magnabond 6398 Part B Size 112 ml		Purchased	No			100	Each	30.0000	1	1			
**													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				PKG		30							
				m136586		6							
				m136862		12							
				m137073		12							

DAS 28 9-89
APR 11 2017
DAS 27 9-89

DAS 27 9-89

DAS 27 9-89

exp: 5/08/2017
DAS 28 9-89

exp: 5/08/2017
DAS 28 9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

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Page 2

Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

600.1012 Purchased No

100 Each

15.0000

1

1

600 1012

Sealant PR1425B2 (#654 sem)

**

APR 11 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

cck017

15

m136838

8

m1370073

7

600.1013 Purchased No

100 Each

60.0000

5

5

600 1013

021200-3M TAPE PRIMER 94 PRIMER 24216

**

APR 11 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

CCK096

60

m136345

35

m137150

25

646.2910 Manufactured No

100 Each

14.0000

1

1

646 2910

Deflector

**

APR 11 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

CCK050

14

155356

14

646.3001 Manufactured No

100 Each

6.0000

1

1

646 3001

Lower Cable Cutter Assembly

**

APR 11 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

cck018

6

156876

4

156316

2

10/7/2018

10/8/2018

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Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐							
FAULT CATEGORY Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐									
OTHER : _____									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

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Page 4

Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3511 Manufactured No

100 Each

7.0000

1

1

646 3511

Strut

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

1

155269

1

CCK108A

6

156231

6

646.3610 Manufactured No

100 Each

19.0000

1

1

646 3610

Filler

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

19

151687

1

156880

18

646.3710 Manufactured No

100 Each

23.0000

1

1

646 3710

Doubler

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK006

23

152594

23

646.3711 Manufactured No

100 Each

12.0000

1

1

646 3711

Clip

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

12

151670

2

156840

10

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Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3712
646 3712
Clip

Manufactured No

100 Each

14.0000

1

1

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

cck104

14

155309

4

156884

10

646.3713
646 3713
Gusset

Manufactured No

100 Each

14.0000

1

1

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

cck105

14

151646

4

156776

10

646.3714
646 3714
Gusset

Manufactured No

100 Each

14.0000

1

1

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

cck105

14

151643

4

156761

10

646.3715
646 3715
Strut Doubler

Manufactured No

100 Each

8.0000

2

2

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

cck105

8

156833

8

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3716
646 3716
Gauge Bracket

Manufactured No

100 Each 13.0000

1 1

DAS
6
9-89

**

APR 11 2017

DAS
27
9-89

Location Loc Qty Loc Code

cck105 13
140845 3
156773 10

646.3717
646 3717
Doubler

Manufactured No

100 Each 9.0000

1 1

DAS
6
9-89

**

APR 11 2017

DAS
27
9-89

Location Loc Qty Loc Code

cck105 9
151423 1
155481 8

646.3718
646 3718
Custom Washer

Manufactured No

100 Each 15.0000

2 2

DAS
6
9-89

**

APR 11 2017

DAS
27
9-89

Location Loc Qty Loc Code

cck105 15
155395 15

646.3719
646 3719
Doubler

Manufactured No

100 Each 18.0000

2 2

DAS
6
9-89

**

APR 11 2017

DAS
27
9-89

Location Loc Qty Loc Code

cck105 18
155554 8
156810 10

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____																			

Picklist Print

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Page 8

Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3910 Manufactured No

100 Each

29.0000

4 4

646 3910
Shim

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

17

151458

1

155260

4

156217

12

CCK108A

12

156793

12

646.3911 Manufactured No

100 Each

13.0000

1 1

646 3911
Shim

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

13

126229

13

646.3912 Manufactured No

100 Each

27.0000

4 4

646 3912
Shim

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK108A

27

155639

12

156874

15

646.3913 Manufactured No

100 Each

52.0000

1 1

646 3913
Shim

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

52

126060

52

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Page 8

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date: _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Page 9

Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.9410
646 9410
Shim

Manufactured No

100 Each

61.0000

1 1

**

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck011

61

140671

61

100 Each

49.0000

2 2

**

APR 11 2017

DAS
27
9-89

647.0112
647 0112
Strut Bracket

Manufactured No

Location

Loc Qty

Loc Code

CCK106

17

156756

17

CCK106

32

155480

32

100 Each

8.0000

2 2

**

APR 11 2017

DAS
27
9-89

647.7703
647 7703
Strut Assembly

Manufactured No

Location

Loc Qty

Loc Code

CCK114

8

157782

8

100 Each

30.0000

2 2

**

APR 11 2017

DAS
27
9-89

650.9201
650 9201
Eyelet Bracket Assembly

Manufactured No

Location

Loc Qty

Loc Code

cck127

30

155578

10

156828

20

APR 11 2017

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

DAS
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9-89

DAS
28
9-89

DAS
28
9-89

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Page 9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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Page 10

Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-11A Purchased No

100 Each 398.0000 10 10

AN3-11A

Bolt

**

APR 11 2017

DAS 6 9-89

DAS 27 9-89

DAS 28 9-89

Location Loc Qty Loc Code

over003 250

153855 150

m136192 100

ST349 148

153855 148

AN3-12A Purchased No

100 Each 269.0000 2 2

AN3-12A

Bolt

**

APR 11 2017

DAS 6 9-89

DAS 27 9-89

DAS 28 9-89

Location Loc Qty Loc Code

over003 206

153854 206

ST349 63

m135603 63

AN3-13A Purchased No

100 Each 47.0000 1 1

AN3-13A

Bolt

**

APR 11 2017

DAS 6 9-89

DAS 27 9-89

DAS 28 9-89

Location Loc Qty Loc Code

GA 16

m127070 16

ST349 31

153845 30

m136406 1

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Page 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐									
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval							
Description Work Order Deviation		Disposition		Completed By							
				Lead hand / Supervisor Approval Verification							
				QC / QA Coordinator Approval							
Root Cause <table style="width:100%;"> <tr> <td style="width:50%;"> Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ </td> <td style="width:50%;"> No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ </td> </tr> </table>		Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	FAULT CATEGORY <table style="width:100%;"> <tr> <td style="width:33%;"> Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ </td> <td style="width:33%;"> Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ </td> <td style="width:33%;"> Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ </td> <td style="width:33%;"> Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐ </td> </tr> </table>				Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐										
Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐								
OTHER : _____											

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By _____					
				Lead hand / Supervisor Approval Verification _____					
				QC / QA Coordinator Approval _____					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-6A Purchased No 100 Each 73.0000 2 2
AN3-6A
 Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

73

153844

73

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

AN44-5A Purchased No 100 Each 29.0000 2 2
AN44-5A
 Eyebolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST339

29

m136047

5

m136866

12

m137075

12

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

AN4C7A Purchased No 100 Each 66.0000 2 2
AN4C7A
 BOLT

DAS
28
9-89

Location

Loc Qty

Loc Code

OVER002

54

m136295

54

ST345

12

123900

4

m135864

8

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

AN665-34R Purchased No 100 Each 20.0000 2 2
AN665-34R
 Clevis

DAS
28
9-89

Location

Loc Qty

Loc Code

ST330

20

153852

20

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

CCR264SS3-02 Purchased No
CCR264SS3-02
 Cherry Rivet

DAS
28
9-89

Location	Loc Qty	Loc Code
CCK003	225	
M136986	225	
ST321	68	
M136648	68	

293.0000 36 36
 **
 DAS 6 9-89
 APR 11 2017
 APR 11 2017
 DAS 27 9-89

CR3213-5-3 Purchased No
CR3213-5-3
 Cherry Rivet

DAS
28
9-89

Location	Loc Qty	Loc Code
ST319	102	
m136537	2	
m136851	100	

102.0000 14 14
 **
 DAS 6 9-89
 APR 11 2017
 APR 11 2017
 DAS 27 9-89

MS20426AD5-7 Purchased No
MS20426AD5-7
 RIVET

DAS
28
9-89

Location	Loc Qty	Loc Code
CCK004	703	
153848	703	
ST311	719	
M133922	719	

1,422.000 2 2
 **
 DAS 6 9-89
 APR 11 2017
 APR 11 2017
 DAS 27 9-89

MS20470AD5-5.5 Purchased No
MS20470AD5-5 5
 Rivet

DAS
28
9-89

Location	Loc Qty	Loc Code
ST309	702	
m134063	702	

702.0000 8 8
 **
 DAS 6 9-89
 APR 11 2017
 APR 11 2017
 DAS 27 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS20470AD5-6 Purchased No
MS20470AD5-6
 RIVET

100 Each 592.0000 8 8
 **

DAS 28 9-89
 APR 11 2017
 DAS 27 9-89

MS20470AD5-7 Purchased No
MS20470AD5-7
 Rivet

Location Loc Qty Loc Code
 ST309 592
 124089 592
 100 Each 368.0000 3 3
 **

DAS 28 9-89
 APR 11 2017
 DAS 27 9-89

MS21042-08 MS21042L08 Purchased No
MS21042-08
 USE MS21042L08

Location Loc Qty Loc Code
 ST309 368
 123425 368
 100 Each 0.0000 2 2
 **

DAS 28 9-89
 APR 11 2017
 DAS 27 9-89

MS21042-3 MS21042L3 Purchased No
MS21042-3
 Nut

100 Each 0.0000 2 2
 **

DAS 28 9-89
 APR 11 2017
 DAS 27 9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L3 Purchased No

100 Each 1,921.000 61 61

MS21042L3

Nut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001	100	
m135945	100	
GA	208	
m134360	102	
M136665	106	
OVER007	800	
m134360	0	
M136665	300	
m137166	500	
ST303	813	
m137073	813	

DAS
6
9-89

APR 11 2017

DAS
28
9-89

MS21042L4 Purchased No

100 Each 1,365.000 2 2

MS21042L4

Nut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001	10	
m133363	10	
GA	154	
m135058	154	
OVER007	500	
m137166	500	
ST303	701	
m136450	199	
m136838	2	
m136986	500	

DAS
6
9-89

APR 11 2017

DAS
28
9-89

2

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____							

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21047-3 Purchased No

100 Each 216.0000 18 18

MS21047-3

Nut Plate

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST301

216

m136442

3

m136781

13

m136986

100

m137075

100

MS24693-C278 Purchased No

100 Each 60.0000 5 5

MS24693-C278

Screw

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST287

60

m136554

60

MS24694-S51 Purchased No

100 Each 322.0000 5 5

MS24694-S51

Screw

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST284

322

m135442

72

m136866

250

MS24694-S54 Purchased No

100 Each 192.0000 2 2

MS24694-S54

SCREW

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST284

192

153846

157

m135948

35

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS24694-S55

Purchased

No

100

Each

314.0000

3

3

MS24694-S55

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

247

153847

247

ST283

67

m136042

67

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-08-13

Purchased

No

100

Each

348.0000

2

2

MS27039-08-13

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

325

153849

325

ST278

23

m136199

23

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-10

Purchased

No

100

Each

309.0000

2

2

MS27039-1-10

SCREW

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

ST280

294

m137164

294

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-12

Purchased

No

100

Each

64.0000

6

6

MS27039-1-12

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

ST280

64

m136537

64

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

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Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-16

Purchased

No

100

Each

171.0000

24

24

MS27039-1-16

Screw

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

over006

50

m137061

50

ST280

121

m136851

100

m136975

21

DAS
28
9-89

MS27039-1-19

Purchased

No

100

Each

281.0000

22

22

MS27039-1-19

Screw

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

80

m134134

80

ST280

201

m136648

1

m137075

200

DAS
28
9-89

MS27039-1-20

Purchased

No

100

Each

89.0000

2

2

MS27039-1-20

Screw

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

89

m136554

89

DAS
28
9-89

MS27039-1-21

Purchased

No

100

Each

167.0000

4

4

MS27039-1-21

Screw

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

167

m127904

167

DAS
28
9-89

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DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
					QC / QA Coordinator Approval				

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

Wednesday, April 05, 2017 4:33:46 PM

Page 19

Work Order ID: 159237

159237

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

100

Each

2,528.000

144

144

NAS1149F0332P

Washer

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

335

m133709

335

ST262

2193

m136835

393

m137075

1800

APR 11 2017

DAS
6
9-89

DAS
27
9-89

NAS1149F0363P

Purchased

No

100

Each

82.0000

2

2

NAS1149F0363P

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

82

124555

82

ADD 11 2017

DAS
6
9-89

DAS
27
9-89

NAS1149F0432P

Purchased

No

100

Each

601.0000

4

4

NAS1149F0432P

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

601

M136442

601

APR 11 2017

DAS
6
9-89

DAS
27
9-89

NAS1149FN832P

Purchased

No

100

Each

1,526.000

4

4

NAS1149FN832P

Washer

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

323

M135058

232

M136182

91

ST263

1203

M136866

1203

ADD 11 2017

DAS
6
9-89

DAS
27
9-89

Wednesday, April 05, 2017 4:33:46 PM

Shop Packet Print

Page 19

DQA: _____ Date: _____



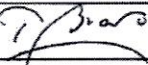
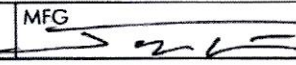
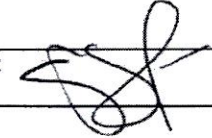
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

 APICAL INDUSTRIES, INC. dba DART AEROSPACE	ENGINEERING CHANGE NOTICE NO. 05304				SHEET 1 OF 1						
	DWG NO. 646.4000		REV: C	PREPARED BY J. BECKER	DATE: 02/04/16						
	EFFECT ON DWG ☐ INC. ☒ UNINC.										
	DWG TITLE: AS350 CABLE CUTTERS KIT										
APPROVED BY: ENGR. 		MFG. 	QC 	EFF. NEXT ORDER							
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED F/N 12.				ECR: N/A					
SHOP COPY RETURN TO ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER NO. <u>159237</u> MCS 1704-05						ACTION ITEM: 1. N/A					
<u>SHEET 1, BOM IS:</u>											
12	R	601.1624	8	16	LOCKNUT	MS21042L3					
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL					
		QTY				SPECIFICATION					
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED					
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO					

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NOTES:

- 1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
- 2 INSTALL F/N 14 WITH F/N 52 & 53.
- 3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMMASTER-CARR P/N 75935A651.
- 4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.
- 5 REUSE FASTENERS FROM F/N 1.
- 6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
- 7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
- 8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.
- 9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

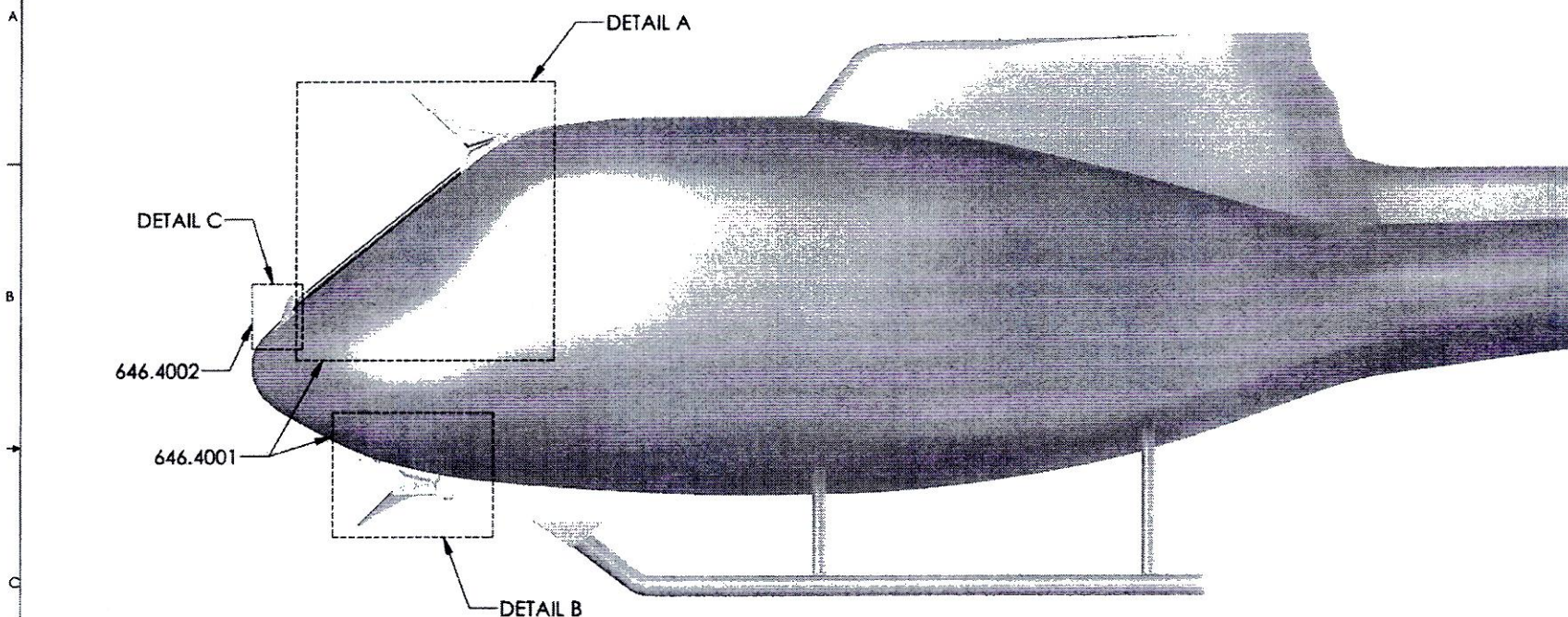
5	5	5	78	601.3875	SCREW	UNINCORPORATED
1	1	1	77	646.9410	SHIM	UNINCORPORATED
	4	4	76	601.2764	WASHER	NAS1149N620P
	2	2	75	601.2973	LOCKNUT	MS21045-08
	2	2	74	601.2988	SCREW	MS21039-0813
	2	2	73	601.2943	LOCKNUT	MS21047-3
	2	2	72	601.3128	NUT	AN316CAR
	2	2	71	601.3209	LOCKNUT	MS21042-4
	4	4	70	601.2638	WASHER	NAS1149F0432P
	2	2	69	601.2669	BOLT	ANMC7A
	2	2	68	601.3119	CLEVIS	AN665-34E
	2	2	67	601.3121	EYE BOLT	AN66A-5A
	2	2	66	650.9201	EYE BRACKET ASSY	
REF	REF	REF	65	647.5701	GPS MOUNT KIT	UNINCORPORATED
		2	64	601.3151	WASHER	NAS1149F0263P
		2	63	601.2911	SCREW	MS2464P4553
	24	24	62	601.2637	SCREW	MS21039-1-16
2	2	2	61	601.2763	BOLT	AN3-12A
	1	1	60	646.3913	SHIM	
	4	4	59	646.3912	SHIM	
	1	1	58	646.3911	SHIM	
	4	4	57	646.3910	SHIM	
	5	5	56	600.1013	PRIMER	
	8 FT	8 FT	55	600.0129	VHB TAPE	
	1	1	54	600.1012	SEALANT	PG 1425 CLASS B
	1	1	53	600.0991	MAGNABOND 639B PART B	UNINCORPORATED
	1	1	52	600.0990	MAGNABOND 639B PART A	UNINCORPORATED
6	10	10	51	601.2826	BOLT	AN3-11A
		2	50	646.3814	WIPER BRACKET	
		2	49	601.2910	SCREW	MS21039-1-18
	2	2	48	601.1365	SCREW	MS21039-1-10
	2	2	47	646.3719	DOUBLER	
	2	2	46	646.3718	CUSTOM WASHER	
	1	1	45	646.3717	DOUBLER	
	22	22	44	601.1948	SCREW	MS21039-1-19
	2	2	43	601.1952	SCREW	MS21039-1-20
	4	4	42	601.1956	SCREW	MS21039-1-21
4006	4005	4004	4003	4002	4001	FIND #
						PART #
						DESCRIPTION
						MATL
						SPEC.

REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02199, 02281, 02719 & 02745	02/06/2010	P. BRAVO
B	INCORPORATED ECN 03044, 03071 & 04731	11/04/2014	P. BRAVO
C	INCORPORATED ECN 03096	09/04/2015	P. BRAVO

		2	2	41	601.2829	SCREW	MS2464P4554
		2	2	40	601.2831	RIVET	MS20424ADS-7
		1	1	39	646.3716	GAUGE BRACKET	
		6	6	38	601.1953	SCREW	MS21039-1-12
	2		2	37	646.3715	STRUT DOUBLER	
	2	2	2	36	601.2824	BOLT	AN3-5A
12	36		36	35	601.2277	RIVET	OC82463-9-02
6	18		18	34	600.0795	NUTPLATE	MS21047-3
3	3		3	33	601.2565	RIVET	MS20470ADS-7
1	1		1	32	646.3813	STRUT BRACKET	
4	4		4	31	601.2822	BOLT	AN3-3A
2	2		2	30	646.3812	GUSSET BRACKET	
8	8		8	29	601.2564	RIVET	MS20470ADS-6
1	1		1	28	646.3714	GUSSET	
	1	1	1	27	646.3610	FILLER	
	3	3	3	26	601.2830	SCREW	MS2464P4555
	2	2	2	25	601.2825	BOLT	AN3-6A
	1	1	1	24	646.3811	RADIUS BLOCK	
	1	1	1	23	646.3712	CLIP	
	1	1	1	22	646.3711	CLIP	
8	8		8	21	601.2832	RIVET	MS20470ADS-5.5
14	14		14	20	601.2020	RIVET	CR5219-5-3
4	6	4	6	10	601.2823	BOLT	AN3-4A
	1	1	1	18	601.2827	BOLT	AN3-13A
	5	5	5	17	601.2912	SCREW	MS2464P4551
1	1		1	16	646.3713	GUSSET	
1	1		1	15	646.3210	SUPPORT	
	1		1	14	646.3710	DOUBLER	
	1	1	1	13	646.3110	CHANNEL	
14	10	8	53	6	61	12	601.1624
16	32	18	120	16	144	11	601.1607
							646.3410
							646.3411
							647.7703
							647.5112
							646.3511
							646.3510
							646.3810
							646.2910
							646.3001
							646.3301
X							646.4006
							646.4005
							646.4004
							646.4003
							646.4002
							646.4001
4006	4005	4004	4003	4002	4001	FIND #	PART #
							DESCRIPTION
							MATL
							SPEC.

QTY	DESCRIPTION	PARTS LIST
NEXT ASSY (S)	ORIGINAL DATE: 08-27-08 DRAWN BY: P. BRAVO CHECKED BY: P. BRAVO DRAWING APPROVAL: P. BRAVO CONTRACT NO.:	DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300 APICAL INDUSTRIES, INC. DBA DART AEROSPACE AS350 CABLE CUTTERS KIT SEE (CAGE CODE) 07N416 SCALE NONE SHEET 1 OF 5

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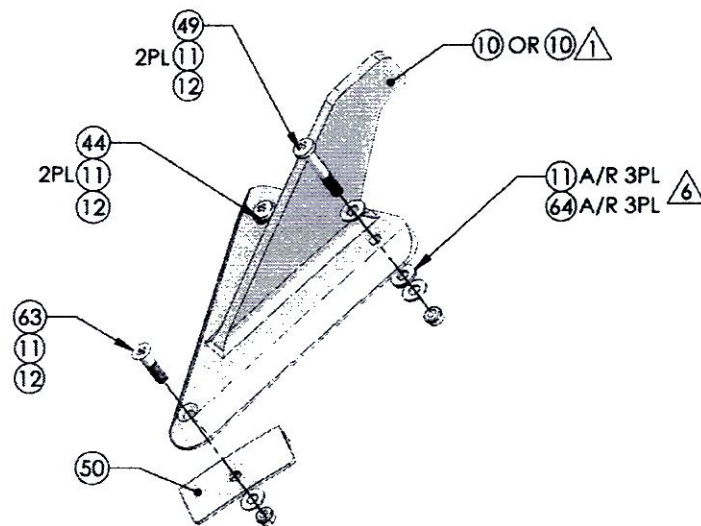
ORIGINAL DATE (DD-MM-YY)		06-27-08	
DRAWN BY		CROCHER	
S. HUB		P. BRAND	
DRAWING APPROVAL			
P. BRAND			
CONTRACT NO.			
DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 APICAL INDUSTRIES INC. (760)-724-5300 DART AEROSPACE			
AS350 CABLE CUTTERS KIT			
UNITED STATES OF AMERICA DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.10 3 PLACE DECIMALS ±0.05 ANGLES ±1°	REV B	CAGE CODE 07M26	DWG. NO. 646.4000
SCALE NONE		SHEET 2 OF 5	

DETAIL D TYPICAL GPS MOUNT KIT INSTALLATION



ORIGINAL DATE (07/04/04)-YES	08-27-08	 3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300	
CHECKED BY S. BRAYO			
DRAWING APPROVAL P. BRAYO	08-28-08		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. PLACE DECIMALS ± .01 2. PLACE DECIMALS ± .005 ANGLES ± .1°			
AS530 CABLE CUTTERS KIT			
SUB	CMTY CODE	DWG. NO.	REV
	07M2E	646.4000	
SCALE NONE		SHEET 3 OF 3	

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DIA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
WRITTEN PERMISSION OF APICAL INDUSTRIES DIA DART AEROSPACE IS PROHIBITED.



DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE 08-27-08		DART 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY S. HART		CHECKED P. BRAVO	
DRAWING APPROVAL P. BRAVO		APICAL INDUSTRIES INC. DIA DART AEROSPACE	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.005 ANGLES ± .5°		SIZE B	DATE CODE 07/12/06
SCALE NONE		DWG. NO. 646.4000	REV. C
		SHEET 5 OF 5	

Work Order ID 159237

159237

Wednesday, April 05, 2017 4:33:47 PM

Item ID: 646.4001 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: AS350 Cable Cutter System
 Start Date: 4/10/2017 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/18/2017 Req'd Qty: 1.00 ***1*** Customer:
 Reference: SCHEDULED/S

Approvals: Process Plan: _____ Date: APR 05 2017 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.4000	C1								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 646.4001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.03							
Quality Control									

CB

DAS
21
9-89
APR 11 2017

REFERENCE ONLY

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NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
2. INSTALL F/N 14 WITH F/N 52 & 53.
3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMACMASTER-CARR P/N 75935A651.
4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.
5. REUSE FASTENERS FROM F/N 1.
6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
7. AT CUSTOMERS OPTION, INSTALL F/N 45 BY MATCH DRILLING ON TO F/N 1.
8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.
9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(s)

05304

5	5	5	78	601.3875	SCREW	MS2703P-1				
1	1	1	77	646.9410	SHIM	△				
		4	76	601.2764	WASHER	NAS1149W03P				
		2	75	601.2973	LOCKNUT	MS2703P-08				
		2	74	601.2988	SCREW	MS2703P-0813				
		2	73	601.2943	LOCKNUT	MS2703P-08-3				
		2	72	601.3128	NUT	ANS14C4R				
		2	71	601.3209	LOCKNUT	MS2703P-1				
		4	70	601.2638	WASHER	NAS1149W03P				
		2	69	601.2669	BOLT	ANAC7A				
		2	68	601.3119	CLEVIS	AN66-34R				
		2	67	601.3121	EYE BOLT	AN66-5A				
		2	66	450.9201	EYE BRACKET ASSY					
REF	REF	REF	65	647.5701	GPS MOUNT KIT	△				
		2	64	601.3151	WASHER	NAS1149W03P				
		2	63	601.2911	SCREW	MS2460R053				
		24	62	601.2637	SCREW	MS2703P-1-16				
2	2	2	61	601.2763	BOLT	ANS-12A				
		1	60	646.3913	SHIM					
		4	59	646.3912	SHIM					
		1	58	646.3911	SHIM					
		4	57	646.3910	SHIM					
		5	56	600.1013	PRIMER					
	8 FT	REF	55	600.0129	YHB TAPE					
	1	1	54	600.1012	SEALANT	PP-145 CLASS B				
		1	53	600.0991	MAGNOBOND 6398 PART B	△				
		1	52	600.0990	MAGNOBOND 4398 PART A	△				
6	10	10	51	601.2826	BOLT	ANS-11A				
		2	50	646.3814	WIPER BRACKET					
		2	49	601.2910	SCREW	MS2703P-1-16				
	2	2	48	601.1363	SCREW	MS2703P-1-10				
	2	2	47	646.3719	DOUBLER					
		2	46	646.3718	CUSTOM WASHER					
	1	1	45	646.3717	DOUBLER					
	22	2	44	601.1948	SCREW	MS2703P-1-19				
		2	43	601.1952	SCREW	MS2703P-1-20				
	4	4	42	601.1956	SCREW	MS2703P-1-21				
..0006	..0005	..0004	..0003	..0002	..0001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED CHS 02799, 02811, 02797 & 02745	02/08/2010	P. BRAYO
B	INCORPORATED ECH 03044, 03079 & 04731	11/04/2014	P. BRAYO
C	INCORPORATED ECH 03098	09/05/2015	P. BRAYO

						2	4	1	601.2829	SCREW	MS24694SS4
						2	40		601.2831	RIVET	MS20425ADS-7
						1	39		646.3716	GAUGE BRACKET	
						6	38		601.1953	SCREW	MS27029-1-12
						2	37		646.3715	STRUT DOUBLER	
		2				2	36		601.2824	BOLT	AN3-5A
12		36				36	35		601.2277	RIVET	CCRB485-302
6		18				18	34		600.0795	NUT/PLATE	MS27047-3
3		3				3	33		601.2565	RIVET	MS20476ADS-7
1		1				1	32		646.3813	STRUT BRACKET	
4		4				4	31		601.2822	BOLT	AN3-5A
2		2				2	30		646.3812	GUSSET BRACKET	
8		8				8	29		601.2564	RIVET	MS20476ADS-6
1		1				1	28		646.3714	GUSSET	
		1		1		1	27		646.3610	FILLER	
		3		3		3	26		601.2830	SCREW	MS24694SS5
		2		2		2	25		601.2825	BOLT	AN3-6A
		1		1		1	24		646.3611	RADIUS BLOCK	
		1		1		1	23		646.3712	CLIP	
		1		1		1	22		646.3711	CLIP	
8		8				8	21		601.2832	RIVET	MS20476ADS-5
14		14				14	20		601.2020	RIVET	CRB213-5-3
4		6		4	6	10	19		601.2823	BOLT	AN3-6A
		1		1		1	18		601.2827	BOLT	AN3-3A
		5		5		5	17		601.2912	SCREW	MS24694SS1
1		1				1	16		646.3713	GUSSET	
1		1				1	15		646.3210	SUPPORT	
				1		1	14		646.3710	DOUBLER	
		1		1		1	13		646.3110	CHANNEL	
14		10		8	53	6	12		601.1624	LOCKNUT	MS21042L3
16		32		18	120	16	11		601.1607	WASHER	NA811WPD30P
							10		646.3410	LH WIPER DEFLECTOR	
						1	9		646.3411	RH WIPER DEFLECTOR	
						2	8		647.7703	STRUT ASSY	
						2	7		647.0112	STRUT BRACKET	
		1		1		1	6		646.3511	STRUT	
		1		1		1	5		646.3510	STRUT	
2		2				2	4		646.3810	BRACKET	
				1		1	3		646.2910	DEFLECTOR	
		1		1		1	2		646.3001	LOWER CUTTER ASSY	
				1		1	1		646.3301	UPPER CUTTER ASSY	
X									646.4006	LOWER CUTTER FIXED PROVISION	
		X							646.4005	LOWER CUTTER REMOVABLE PROVISION	
				X					646.4004	FIXED PROVISION (M)	
						X			646.4003	CABLE CUTTERS 14 WITHOUT FIXED PROVISION	
									646.4002	ASS300 WIPER DEFLECTOR KIT	
						X			646.4001	ASS300 CABLE CUTTERS KIT	
4006	4005	4004	4003	4002	4001	FIND #	PART #		DESCRIPTION	MATL	SPEC.

QTY		PARTS LIST	
NEXT ASSY (S)		 3030 ENTERPRISE CT., SUITE A YUST, CA 92081 (760)-724-5300 AEROSPACE AFFILIATE INDUSTRIES, INC. 4800 DART AIRCRAFT	
ORIGINAL DATE 01/01/88 DRAWN BY S. HUFF DESIGNED APPROV. P. BRADY P. BRADY 01/01/88		123 B UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE: 1 PLACE DECIMALS .1250 2 PLACE DECIMALS .0150 3 PLACE DECIMALS .0050 4 PLACE DECIMALS .0010 5 PLACE DECIMALS .0005 6 PLACE DECIMALS .0001	
		ASSY CAGE CODE 8 07W26 DWG. NO. 646.000 SCALE NONE SHEET 1 OF 5	